

Amendments to the Drawings:

Please replace the previously filed Figs. 2-6b with the attached replacement Figs. 2-6b.
Annotated Figs. 2-6b are also enclosed.

REMARKS

This response is a reply the Office Action mailed on May 21, 2007. Claims 1-20 are pending in the patent application. Claims 1, 10 and 16 have been amended. Claims 7 and 8 have been cancelled without prejudice or disclaimer. The specification and drawings have been amended. No new matter has been added by this response.

In the Office Action, the Examiner objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(4) because the Examiner states that there are numerous reference characters in the specification that have been used to designate several different aspects of the invention. The Examiner further objects to the drawings under 37 C.F.R. § 1.83(a) because certain parts of the invention are not shown. Applicant has amended the drawings and the specification to clarify the description of the invention. Accordingly, Applicant respectfully requests that the objection to the drawings be withdrawn.

Claim 18 is objected to based on informalities. Specifically, the Examiner states that the Young's Modulus of $10 \text{ to } 13 \times 10^3 \text{ N/mm}^2$ should be $(10 \text{ to } 13) \times 10^3 \text{ N/mm}^2$. Applicant has amended claim 18 in accordance with the Examiner's suggestion. Accordingly, Applicant respectfully requests that the objection to claim 18 be withdrawn.

The disclosure is objected to based on informalities and specifically because the Young's Modulus on page 7 should be changed to be $(8 \text{ to } 15) \times 10^3 \text{ N/mm}^2$. Applicant has amended the specification in accordance with the Examiner's suggested amendment. Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

The Examiner states that the trademark "Teflon" should be capitalized wherever it appears and accompanied by the generic terminology. Applicant has amended the specification to properly identify Teflon as a trademark in accordance with the Examiner's suggestion.

Claim 8 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because it includes the trademark Teflon. Applicant has cancelled claim 8. Therefore, Applicant respectfully submits that the rejection of claim 8 is now moot.

Claims 1-10 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,907,671 to Duvivier (“Duvivier”). Applicant respectfully disagrees with and traverses this rejection for the following reasons.

Amended Claim 1 is directed to a single piece container which is made of a non-reactive material for high temperature preparation of materials for testing the presence of an electrolyte such as an acid. In contrast, Duvivier is directed to a coating process which applies a coating to a base material. Duvivier does not disclose that the base material itself is a non-reactive material as in the claimed invention. Furthermore, Duvivier discloses applying a coating to prevent reactions with the base material which means that the base material is not made of a non-reactive material.

Amended claim 10 includes similar subject matter as claim 1 and is directed to a single piece container made of a non-reactive material for holding materials in the presence of an acid. Therefore, for the same reasons provided above with respect to claim 1, Duvivier does not disclose the subject matter of amended claim 10. Accordingly, Applicant submits that claim 1 and amended claim 10, and the claims that depend therefrom, are each patentably distinct over Duvivier and in condition for allowance.

Claims 1-7, 9 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,181,092 to Ness (“Ness”). Applicant disagrees with and traverses this rejection for the following reasons.

Amended claim 1 is directed to a single piece, hand-held container made of a non-reactive material. Amended claim 10 includes similar subject matter and recites, among other things, “a single piece hand-held container made of a non-reactive material for holding materials in the presence of an acid.” In contrast, Ness discloses a metallurgical process including a furnace having a refractory lining 10 and containing a crucible 11. The crucible 11 can be composed of a material which is either neutral or basic for holding an acid. (Page 2, Col. 2, lines 47-53). The crucible 11 of Ness is a large scale crucible used in a furnace. Ness does not disclose or suggest using the crucible 11 as a hand-held container for testing purposes as in the claimed invention.

Accordingly, Applicant submits that amended claims 1 and 10, and claims that depend therefrom, are each patentably distinct from Ness and in condition for allowance.

Claims 1-6 and 9-11 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,784,978 to Ogasawara (“Ogasawara”). Applicant respectfully disagrees with and traverses this rejection for the following reasons.

Amended claim 1 is directed to a single piece, hand-held container made of a non-reactive material where the container is at least partially covered with a non-reactive coating. Amended claim 10 includes similar subject matter and recites, among other things, a single piece, hand-held container made of a non-reactive material which is at least partially covered with a non-reactive coating for holding materials in the presence of an acid. Ogasawara does not disclose or suggest such subject matter.

Ogasawara discloses a method for preparing hexagonal boron nitride powder that in an example describes blending a powdery mixture in a “graphic crucible” and heat treating the material in the crucible at 1600°C in a high frequency furnace. (Col. 10, lines 15-27).

Ogasawara does not disclose or suggest at least partially covering or coating the crucible with a non-reactive coating as in the claimed invention. Accordingly, Applicant respectfully submits that amended claims 1 and 10, and the claims that depend therefrom, are each patentably distinct over Ogasawara and in condition for allowance.

Claims 10-13 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,858,767 to Borin (“Borin”). Applicant disagrees with and traverses this rejection for the following reasons.

As stated above, amended claim 1 recites, among other things, a single piece, hand-held container made of a non-reactive material for high temperature preparation of materials where the container is at least partially covered with a non-reactive coating. Amended claim 10 discloses similar subject matter.

In contrast, Borin discloses a container for storing and dispensing liquids that includes a disposable plastic cup and lid. Borin does not disclose or suggest a container made of a non-reactive material for high temperature preparation of materials nor a container that is at least partially covered with a non-reactive coating. In fact, the plastic cup and lid of Borin would be destroyed by such high temperatures. Furthermore, with respect to claim 10, Borin does not disclose a container made of a non-reactive material that holds materials in the presence of an acid.

Accordingly, Applicant submits that amended claims 1 and 10, and the claims that depend therefrom, are each patentably distinct over Borin and in condition for allowance.

Claims 1-6, 9, 10 and 13-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by International Patent Document No. WO 03-106371 to Imam (“Imam”). Applicant disagrees with and traverses this rejection for the following reasons.

Amended claim 1 is directed to a single piece, hand-held container made of a non-reactive material for high temperature preparation of materials where the container is at least partially covered with a non-reactive coating. Amended claim 10 is directed to a single piece, hand-held container made of a non-reactive material for holding materials in the presence of an acid that has a base connected to sides of the container forming an internal cavity that contains the materials and acid, and which is at least partially covered with a non-reactive coating. Imam does not disclose or suggest such subject matter.

Imam discloses the method of forming a ceramic material or body such as a crucible made of graphite and silicon carbide that can hold molten substrates at temperatures as high as 1400°C. (See the Abstract; page 5, lines 14-18). Imam does not disclose at least partially covering or coating the container or crucible with a non-reactive coating.

Accordingly, Applicant submits that amended claims 1 and 10, and the claims that depend therefrom, are each patentably distinct over Imam and are in condition for allowance.

Claims 1 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,820,681 to Colombo (“Colombo”) in view of U.S. Patent No. 3,859,193 to Bednarski (“Bednarski”). Applicant disagrees with and traverses this rejection for the following reasons.

Colombo is directed to a unibody crucible for a MBE effusion cell. (See the Abstract). As stated by the Examiner, Colombo does not disclose or suggest being able to contain an electrolyte or being made of a non-reactive material for high temperature preparation as in the claimed invention. The Examiner therefore relies on Bednarski to remedy the deficiencies of Colombo.

Bednarski is directed to an apparatus for coulometric stripping analysis including a graphite container having that is coated with a thin continuous coherent film of mercury on the inside of the container. (Col. 5, lines 13-20). The mercury coating serves as the electrolysis cell for receiving the sample solution as well as the working electrode. The mercury therefore serves as a reactive coating instead of a non-reactive coating as in the claimed invention.

Accordingly, the combination of Colombo and Bednarski does not disclose or suggest the subject matter of amended claims 1 and 10. Therefore, Applicant submits that amended claims 1 and 10 and the claims that depend therefrom, are each patentably distinct over the combination of Colombo and Bednarski and condition for allowance.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Colombo and Bednarski. Claim 2 depends from amended claim 1. Therefore, Applicant submits that claim 2 is patentably distinct over the combination of Colombo and Bednarski for at least the reasons provided above. Furthermore, the combination of Colombo and Bednarski does not disclose or suggest the novel subject matter of claim 2 in combination with the novel subject matter of amended claim 1.

Claims 3 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Colombo, Bednarski and in further view of U.S. Patent No. 4,115,239 to Bouy et al. ("Bouy"). Applicants disagree with and traverse this rejection for the following reasons.

The Examiner states that Colombo and Bednarski teach a container capable of holding an electrolyte. The Examiner uses Bouy to teach a container that holds hydrofluoric and sulfuric acids. As stated above, Applicant submits that the combination of Colombo and Bednarski does not disclose a single piece, hand-held container made of a non-reactive material that is at least partially covered with a non-reactive coating. Bouy does not remedy the deficiencies of

Colombo and Bednarski. Specifically, Bouy does not disclose or suggest a single, hand-held container made of a non-reactive material that is at least partially covered with a non-reactive coating such as in the claimed invention.

Applicant therefore submits that claims 3 and 4 are at least patentably distinct over the combination of Colombo, Bednarski and Bouy for at least the reasons provided above with respect to amended claim 1 and for the further reasons that this combination does not disclose or suggest the novel subject matter of claims 3 and 4 in combination with the novel subject matter of amended claim 1.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Colombo, Bednarski and in further view of U.S. Patent No. 5,798,183 to Hosono et al. (“Hosono”). Applicant disagrees with and traverses this rejection for the following reasons.

Similar to the rejection of claims 3 and 4 above, the Examiner combines Colombo and Bednarski to teach the container for holding an electrolyte as in the claimed invention and uses Hosono to teach a container that can hold perchloric acid. The cited combination, however, does not disclose or suggest a single piece, hand-held container made of a non-reactive material that is at least partially covered with a non-reactive coating as in the claimed invention. Accordingly, Applicant submits that claim 5 is patentably distinct over the combination of Colombo, Bednarski and Hosono for at least the reasons provided above with respect to amended claim 1 and for the further reason that the cited combination does not disclose or suggest the novel subject matter of claim 5 in combination with the novel subject matter of amended claim 1.

Claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Colombo in view of Bednarski. Claim 1 has been amended to include the subject matter of claim 7. Claim 8 has been cancelled. Amended claim 1 is directed to a single piece, hand-held

container made of a non-reactive material which is at least partially covered with a non-reactive coating. In contrast, Bednarski discloses that the graphite container 10 itself is in the shape of a crucible and serves as an electrode-electrolysis cell. (Col. 6, lines 3-7). Bednarski discloses that the upper portion of the porous insulator tube 22 is covered with a tightly fitted plastic film such as polytetrafluoroethylene, to prevent loss of electrolyte. (Col. 6, lines 35-41). Bednarski therefore does not disclose that the graphite container 10 includes the plastic film but instead the tube 22. Bednarski therefore does not disclose or suggest a container made of a non-reactive material that is at least partially covered or coated with a non-reactive coating as in the claimed invention.

Accordingly, Applicant submits that claims 7 and 8 are patentably distinct over the combination of Colombo and Bednarski for at least the reasons provided above with respect to amended claim 1 and for the further reason that the cited combination does not disclose or suggest the novel subject matter of claim 7 in combination with the novel subject matter of amended claim 1.

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Colombo and Bednarski in further view of U.S. Patent No. 5,919,303 to Holder (“Holder”). Applicant disagrees with and traverses this rejection for the following reasons.

Claim 9 depends from amended claim 1 and further defines the containers having a bottom and sides where the transition between the bottom and sides is arcuate. As stated above, the combination of Colombo and Bednarski does not disclose or suggest the subject matter of amended claim 1. Therefore, Applicant submits that claim 9 is patentably distinct over the combination of Colombo, Bednarski and Holder for at least the reasons provided above with respect to amended claim 1 and for the further reason that the cited combination does not

disclose or suggest the novel subject matter of claim 9 in combination with the novel subject matter of amended claim 1.

Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Borin and in further view of U.S. Patent No. 5,765,705 to Deubel (“Deubel”). Applicant disagrees with and traverses this rejection for the following reason.

Claim 12 depends from amended claim 1. Claim 12 is patentably distinct over Borin for at least the reasons provided above with respect to amended claim 1. As stated above, Borin discloses a plastic container for storing liquids. Borin does not disclose or suggest a single piece, hand-held container made of a non-reactive material for high temperature preparation of materials that is at least partially covered with a non-reactive coating. Deubel does not remedy the deficiencies of Borin. Specifically, Deubel does not disclose or suggest a container made of a non-reactive material for high temperature preparation of materials that is at least partially covered with a non-reactive coating.

For at least these reasons, Applicant submits that claim 12 is patentably distinct over the combination of Borin and Deubel for at least the reasons provided above with respect to amended claim 1 and for the further reasons that the combination of Borin and Deubel does not disclose or suggest the subject matter of claim 12. Accordingly, Applicant submits that claim 12 is in condition for allowance.

Claims 14-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Borin and in further view of U.S. Patent No. 3,817,430 to Borin II. Applicant disagrees with and traverses this rejected for the following reasons.

Claims 14 and 15 depend from amended claim 10. As stated above, Borin does not disclose or suggest the subject matter of amended claim 10. Therefore, Applicant submits that

the combination of Borin and Borin II does not disclose or suggest the subject matter of claims 14 and 15 for at least the reasons provided above with respect to amended claim 10. Furthermore, the combination of Borin I and Borin II does not disclose or suggest the novel subject matter of claims 14-15 in combination with the novel subject matter of amended claim 10. Accordingly, Applicant submits that claims 14-15 are in condition for allowance.

Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Duvivier, Ness or Ogasawara in view of Bol'shakova ("Bol'shakova"). Applicant disagrees with and traverses this rejection for the following reasons.

Claim 16 is directed to a single piece, hand-held container for preparing or testing materials that is resistant to acids and temperatures of at least 400°C made of a graphite or graphite composite material having a thermal conductivity of 40 to 120 W/(m*K). The combination of Duvivier, Ness or Ogasawara and Bol'shakova does not disclose or suggest this subject matter.

As stated above, Duvivier, Ness or Ogasawara do not disclose or suggest a single piece, hand-held container made of a non-reactive material for preparing or testing materials that are resistant to acids and high temperatures where the container is at least partially covered by a non-reactive coating. Applicant therefore submits that claim 16 is patentably distinct from Duvivier, Ness or Ogasawara and Bol'shakova and in condition for allowance.

Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Colombo, Ogasawara and Bol'shakova. Applicant disagrees with and traverses this rejection for the following reasons.

Claim 16 includes similar subject matter to amended claim 1 and 10. As stated above, neither Colombo nor Ogasawara disclose or suggest the subject matter of amended claims 1 and

10. Therefore, Applicant submits that neither Colombo nor Ogasawara disclose or suggest the subject matter of amended claim 16. Furthermore, Bol'shakova is combined with Colombo and Ogasawara to teach the claimed thermal conductivity. Bol'shakova does not remedy the deficiencies of Colombo and Ogasawara and specifically, does not disclose or suggest a single piece, hand-held container made of a non-reactive material for preparing and testing materials at high temperatures which is at least partially covered with a non-reactive coating as in the claimed invention. Applicants therefore submit that claim 16 is patentably distinct over the combination of Colombo, Ogasawara and Bol'shakova and in condition for allowance.

Claims 17-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Duvivier, Ness or Ogasawara in view of Bol'shakova and in further view of AZoM.com ("AZoM.com"). Applicant disagrees with and traverses this rejection for the following reasons.

Claims 17-19 depend from amended claim 16. Claim 16 includes similar subject matter to amended claims 1 and 10. Therefore, Applicant submits that claims 17-19 are at least patentably distinct over Duvivier, Ness and Ogasawara for the reasons provided above with respect to amended claims 1 and 10. Furthermore, Bol'shakova is added to this combination to teach the claimed thermal conductivity. Bol'shakova does not remedy the deficiencies of Duvivier, Ness or Ogasawara. Also, AZoM.com is added to disclose the properties of graphite of claims 17-19. AZoM.com does not remedy the deficiencies of Duvivier, Ness, Ogasawara or Bol'shakova. Applicants therefore submit that claims 17-19 are patentably distinct over the combination of Duvivier, Ness or Ogasawara and Bol'shakova and AZoM.com and in condition for allowance.

Claim 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Duvivier, Ness or Ogasawara in view of Bol'shakova and AZoM.com and in further view of SGL Carbon Group

("SGL"). As stated above, neither Duvivier, Ness, Ogasawara, Bol'shakova and AZoM.com, either taken alone or in combination, disclose or suggest the subject matter of amended claim 16. SGL is added to this combination to disclose that the graphite is R7510. SGL does not remedy the deficiencies of Duvivier, Ness, Ogasawara, Bol'shakova or AZoM.com. Accordingly, Applicant submits that claim 20 is patentably distinct over the combination of Duvivier, Ness, Ogasawara, Bol'shakova, AZoM.com and SGL for at least the reasons provided above with respect to amended claim 16 and for the further reason that the combination of these references does not disclose the novel subject matter of claim 20 in combination with the novel subject matter of amended claim 16.

In view of the above, Applicant submits that claims 1-20 are patentable over the cited references. Accordingly, Applicant respectfully requests that claims 1-20 be deemed allowable at this time and that a timely Notice of Allowance be issued in this case.

A check in the amount of \$230.00 is submitted herein to cover the cost for the two-month extension of time. If any other fees are due in connection with this application, the Patent Office is authorized to deduct the fees from the Deposit Account No. 07-2069. If such a withdrawal is made, please indicate the attorney docket number (4640.78899) on the account statement.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

Customer No. 24978

October 22, 2007

300 South Wacker Drive

Suite 2500

Chicago, Illinois 60606

Telephone: (312) 360-0080

Facsimile: (312) 360-9315

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By:



Christopher S. Hermanson
Registration No. 48,244

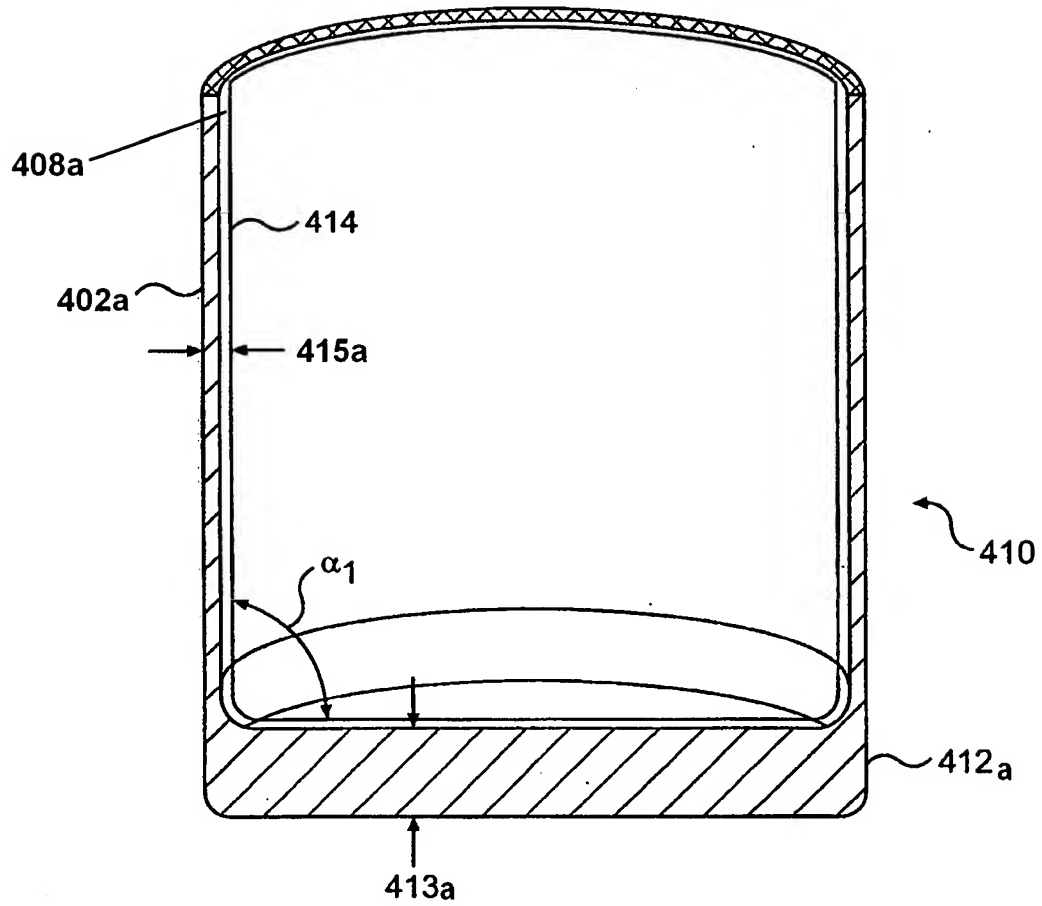


FIG. 3a

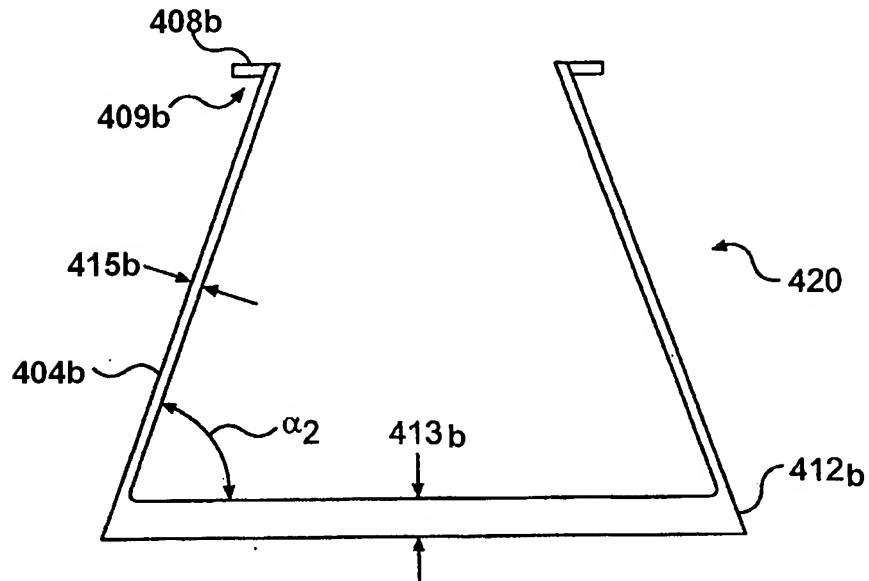


FIG. 3b

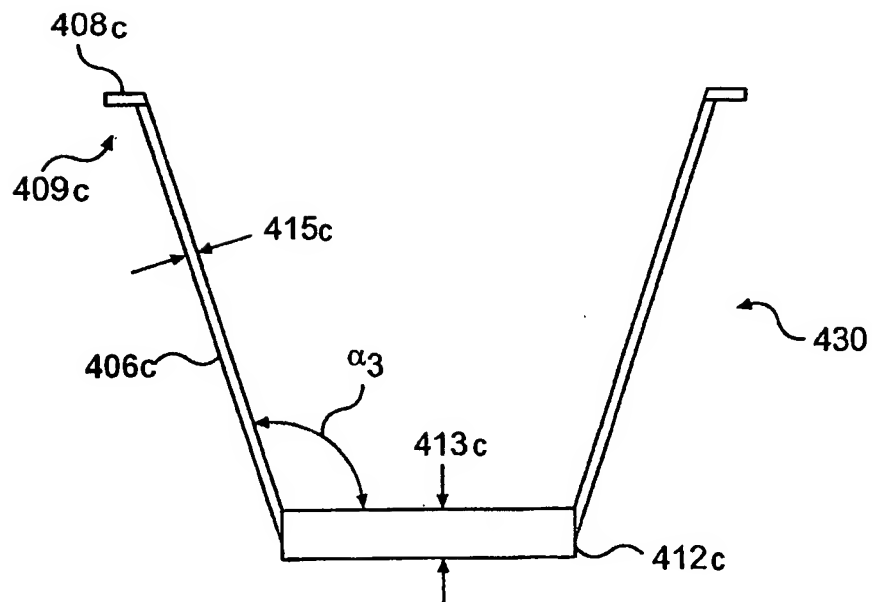


FIG. 3c

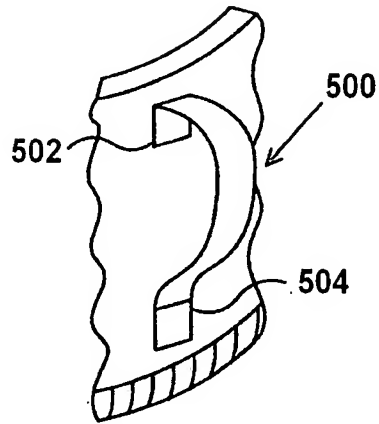


FIG. 4a

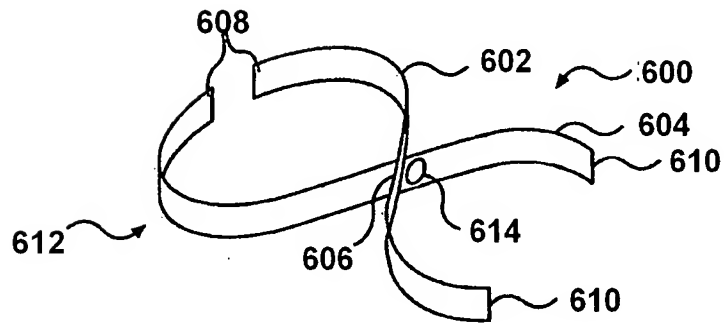


FIG. 4b

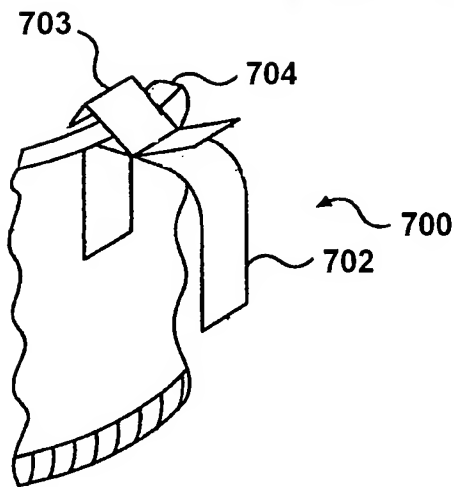


FIG. 4c

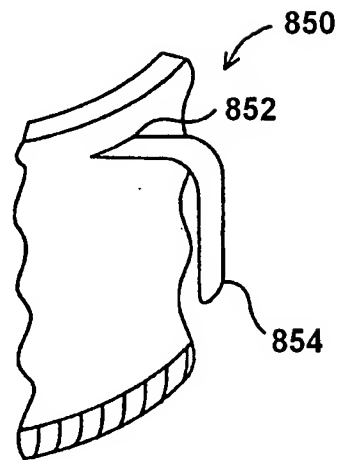


FIG. 4d

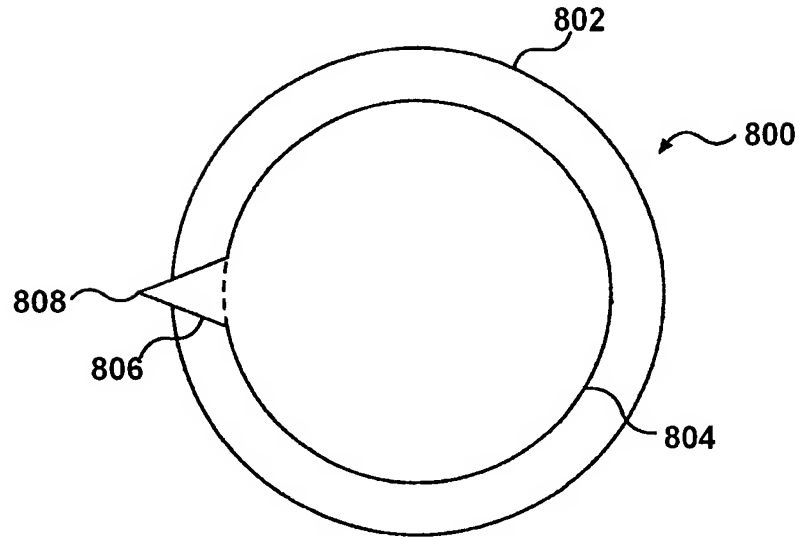


FIG. 5

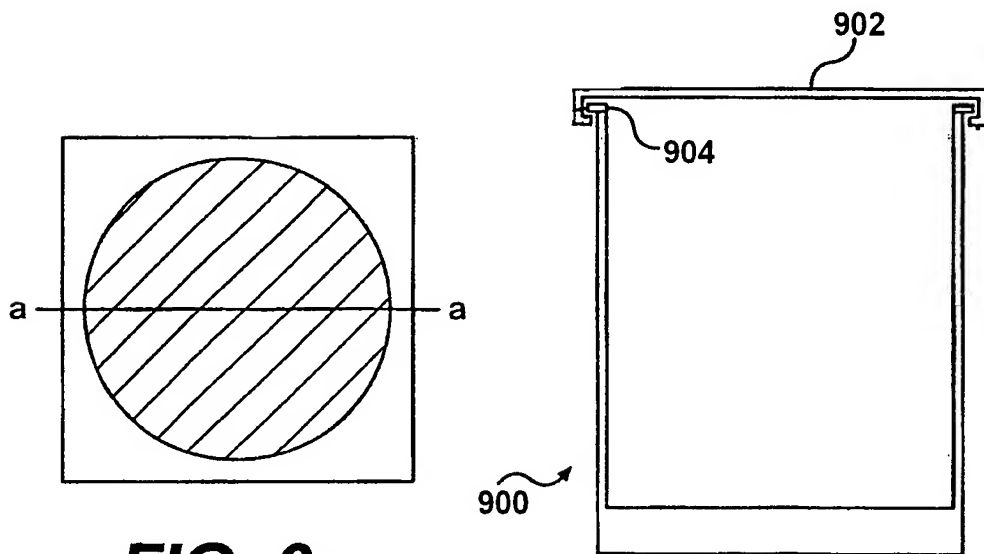


FIG. 6a

FIG. 6b